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Docket No. USF-T156X
Serial No. 10/073,065In the Claims

Claims 1-32 (Cancelled)

Claim 33 (New): An immunogenic composition comprising one or more plasmid DNA coacervated with chitosan, wherein said one or more plasmid DNA encode an M2 respiratory syncytial virus (RSV) antigen and at least three RSV antigens selected from the group consisting of F, G, M, SH, NS1, NS2, N, and P.

Claim 34 (New): The immunogenic composition of claim 33, wherein said one or more plasmid DNA encode said M2 RSV antigen, said F RSV antigen, said G RSV antigen, and at least one RSV antigen selected from the group consisting of M, SH, NS1, NS2, N, and P.

Claim 35 (New): The immunogenic composition of claim 33, wherein said one or more plasmid DNA encode each of said F, G, M, SH, NS1, NS2, N, and P RSV antigens.

Claim 36 (New): The immunogenic composition of claim 33, wherein said one or more plasmid DNA and said chitosan together form nanospheres.

Claim 37 (New): A method for raising an immune response in a host against RSV, comprising administering to the host an immunoeffective amount of the immunogenic composition of claim 33.

Claim 38 (New): The method of claim 37, wherein said administering is oral or intranasal.

Claim 39 (New): The method of claim 37, wherein said administering does not induce airway hyperreactivity.

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Claim 40 (New): The method of claim 37, wherein the immunoeffective amount is administered in a single dose.

Claim 41 (New): The method of claim 37, wherein the immunoeffective amount is about 1 mg/kg host weight.

Claim 42 (New): The method of claim 37, wherein the one or more plasmid DNA encode the M2 RSV antigen, the F RSV antigen, the G RSV antigen, and at least one of the RSV antigens selected from the group consisting of M, SH, NS1, NS2, N, and P.

Claim 43 (New): The method of claim 37, wherein the one or more plasmid DNA encode each of the F, G, M, SH, NS1, NS2, N, and P RSV antigens.

Claim 44 (New): The method of claim 37, wherein the one or more plasmid DNA and the chitosan together form nanospheres.

Claim 45 (New): A method of making the immunogenic composition of claim 33, comprising cloning cDNA encoding the RSV antigens in one or more plasmids to form the one or more plasmid DNA; and coacervating said one or more plasmid DNA with the chitosan.

Claim 46 (New): The method of claim 45, wherein said coacervating results in the formation of nanospheres.

Claim 47 (New): The method of claim 45, wherein the one or more plasmid DNA encode the M2 RSV antigen, the F RSV antigen, the G RSV antigen, and at least one of the RSV antigens selected from the group consisting of M, SH, NS1, NS2, N, and P.

Claim 48 (New): The method of claim 45, wherein the one or more plasmid DNA encode each of the F, G, M, SH, NS1, NS2, N, and P RSV antigens.

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Claim 49 (New): The method of claim 45, wherein the one or more plasmids are pVAX plasmids.

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